

DICTAMAT 50 WS

Technical Manual

You can find the current version of our manual on our website under «Downloads»:
<https://en.dictator.de/products/door-closing-solutions/door-closers/sliding-door-closer-dictamat50/ws/>

A) Safety Instructions / Components Included

1) Safety Instructions

When installing and using the DICTAMAT 50 WS with tensioned wire rope make sure to observe all information and advice given in this manual. During the installation we recommend to wear protective gloves to prevent any risk of getting hurt by sheet edges.

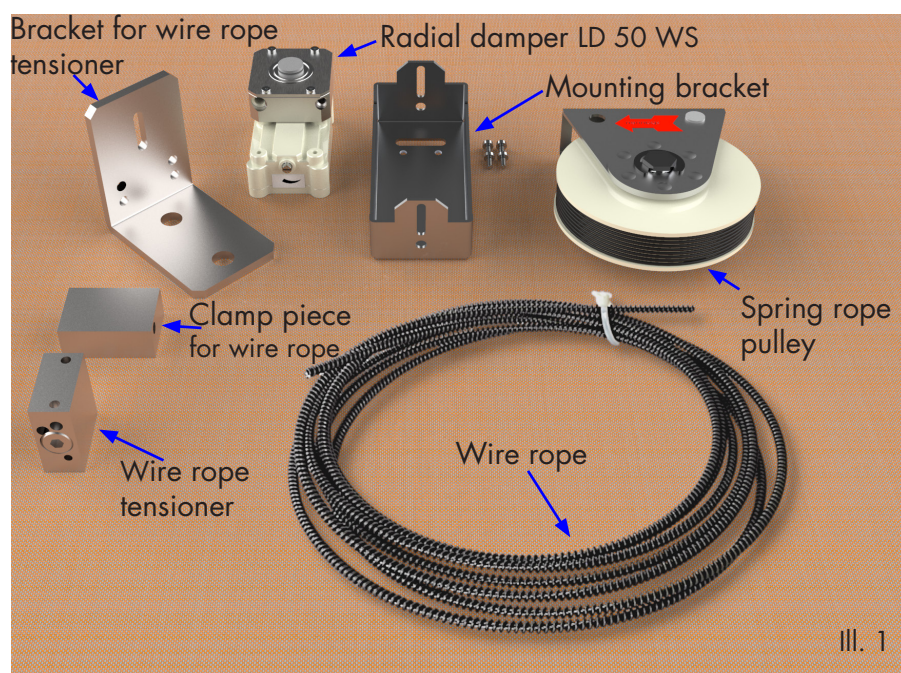
The casing of the spring rope pulley may never be opened as the released spring can cause major injuries. If the spring rope pulley should for some reason no longer work properly, the complete device has to be replaced!

It has also to be made sure that the spring rope pulley and the radial damper are protected in order to prevent fingers being trapped (protection cover!).

The closing speed has to be adjusted on the radial damper in such a way that the door can easily be stopped by hand in every position, making sure nobody will be endangered.

2) Components Included (Ill. 1)

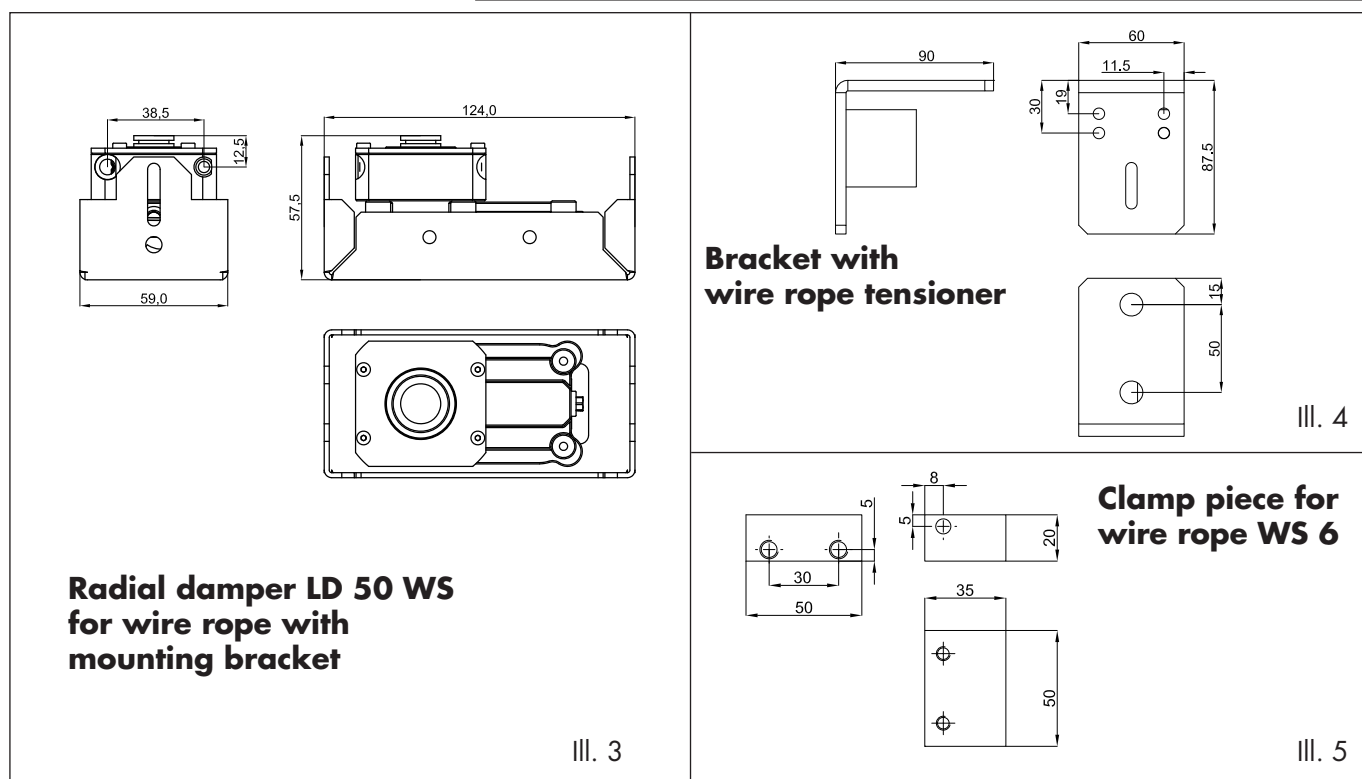
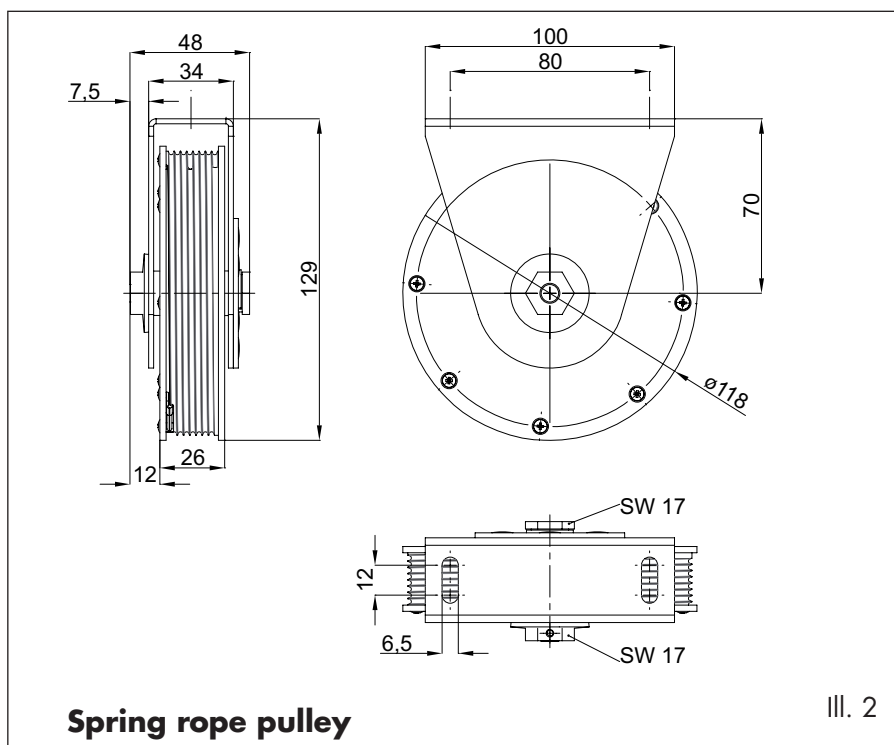
Spring rope pulley (closing force 25 N or 50 N) with bracket and 2 m of plastic rope
Radial damper LD 50 WS with attachment for WS 6 wire rope
Mounting bracket for radial damper LD 50 WS with buffer and quick chain link for fixing the rope
Bracket with wire rope tensioner
Clamp piece for WS 6 wire rope
5 m of WS 6 wire rope



Ill. 1

B) Dimensions

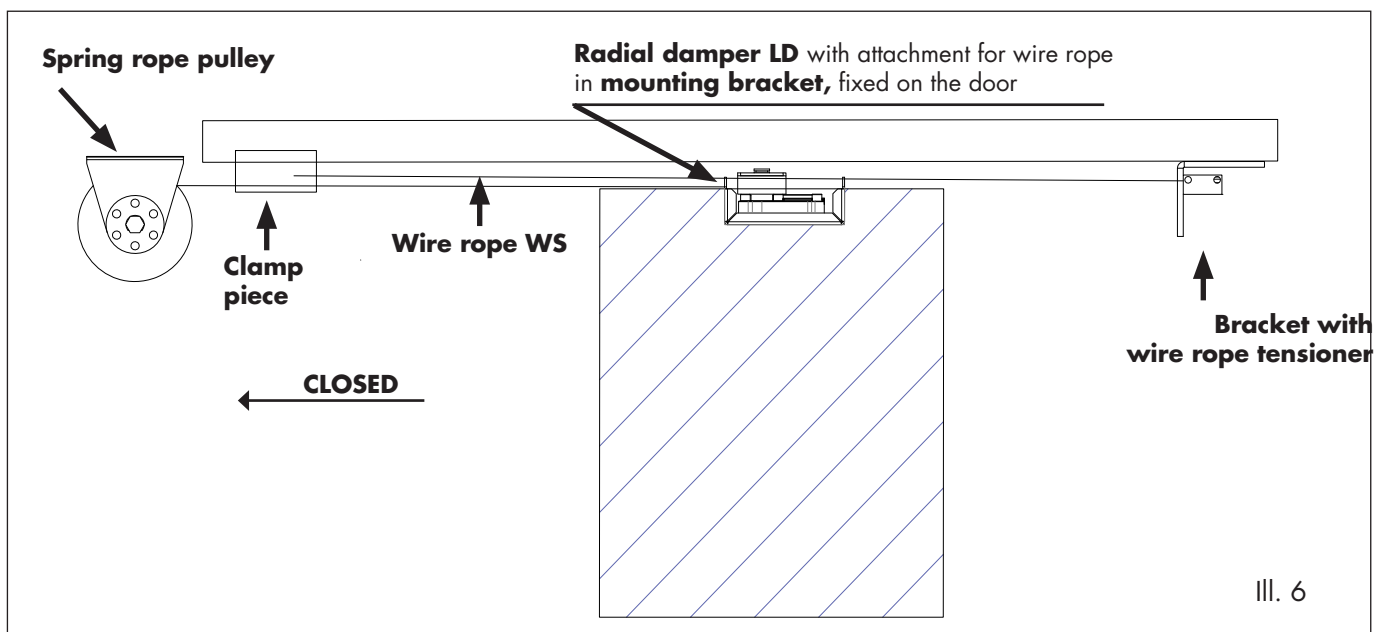
The following dimensioned drawings show the most important dimensions. In case you need further dimensions, we would be happy to provide a AutoCAD drawing - or you contact our technical customer service.



C) Installation of the DICTAMAT 50 WS

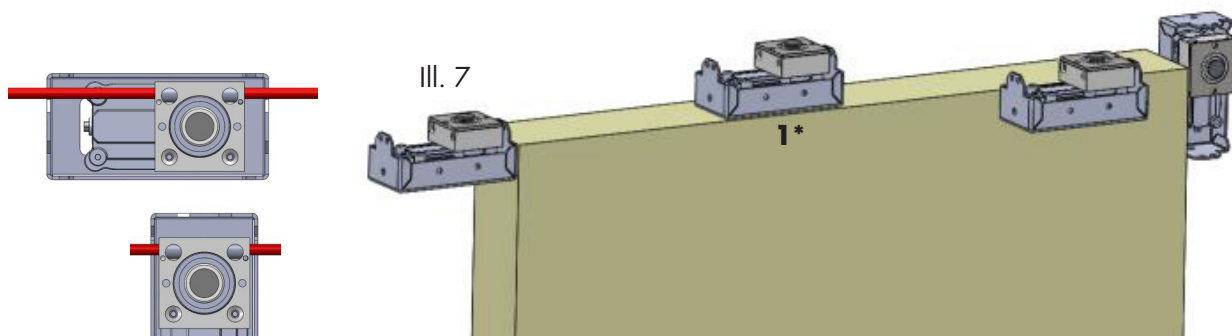
1) Determining the Mounting Positions

The spring rope pulley of the DICTAMAT 50 WS is mounted in the CLOSED position of the sliding door.



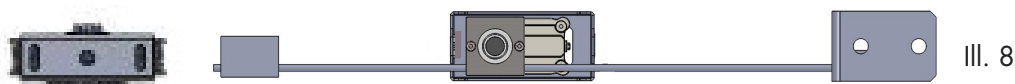
The radial damper LD 50 WS is fixed on the door leaf and moves together with the door leaf. Therefore make sure there is enough space during the whole travel.

Depending on the available space, the mounting bracket with the radial damper can be fixed on the top or the side of the door leaf. For the possible options please see the following picture.



The attachment on the radial damper for guiding the wire rope can be turned according to the type of fixing and the required damping direction (see the illustrations on the left).

IMPORTANT: Clamp piece, bracket with wire rope tensioner and damper have to be mounted so that the wire rope is exactly aligned.



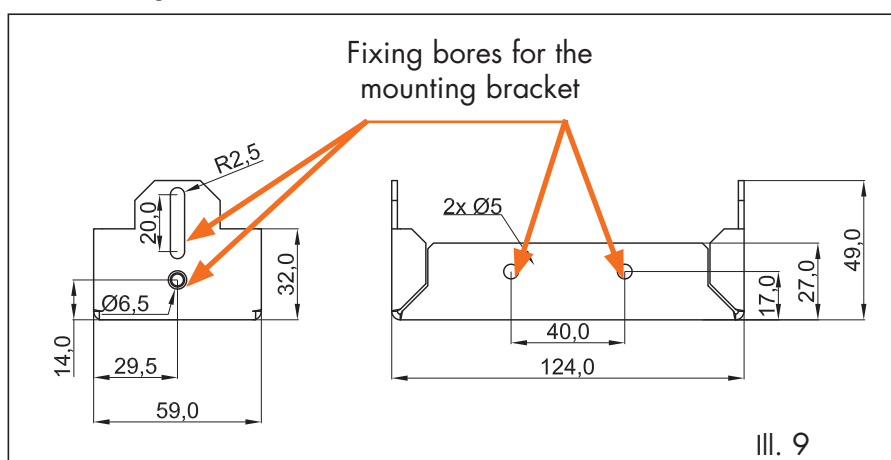
C) Installation of the DICTAMAT 50 WS - cont.

2) Mounting the Radial Damper

2a) Fixing the mounting bracket on the door

The following illustration shows the bores in the mounting bracket for the different mounting positions. At first you fix the mounting bracket without the radial damper.

ATTENTION: In case the radial damper shall be mounted according to illustration 7 (1*) on top of the door, an additional adapter plate is required. Choosing this type of mounting, you first have to fix the radial damper in the mounting bracket and then screw the adapter plate with the mounting bracket on the door.



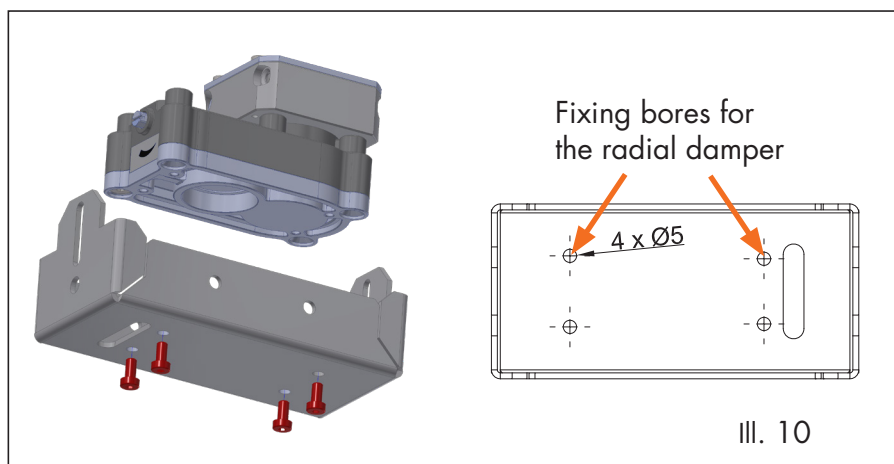
2b) Fixing the radial damper in the mounting bracket

When the mounting bracket is fixed to the door, the radial damper is fixed in the mounting bracket by means of the 4 included plastic screws (Torx T20).

Max. tightening torque of the screws: 2 Nm

EXCEPTION: The radial damper is fixed on top of the door leaf => see point 2a).

ATTENTION: The adjusting screw has to be on the same side as the oblong hole in the bottom of the mounting bracket.

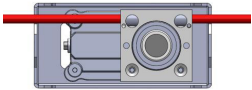


C) Installation of the DICTAMAT 50 WS - cont.

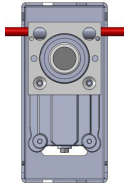
2c) Correct positioning of the wire rope attachment

In the factory the wire rope attachment on the LD 50 radial damper is pre-assembled so that you can guide the wire rope according to ill. 11a and the damping will be anticlockwise.

Ill. 11a



Ill. 11b



However, depending on the mounting situation it may be necessary to dismount the attachment and to fix it in another position

- for changing the damping direction
- and/or for adapting the guiding opening for the wire rope to the mounting position (see adjoining illustrations).

(a) Changing the damping direction

Step 1: Unscrew the four fixing screws of the cover and take off the cover (see ill. 13).

Step 2: Take out the wire rope wheel and turn it (For taking it out, if necessary, turn the radial damper upside down and softly hit something solid. Then the wire rope wheel will fall out!):

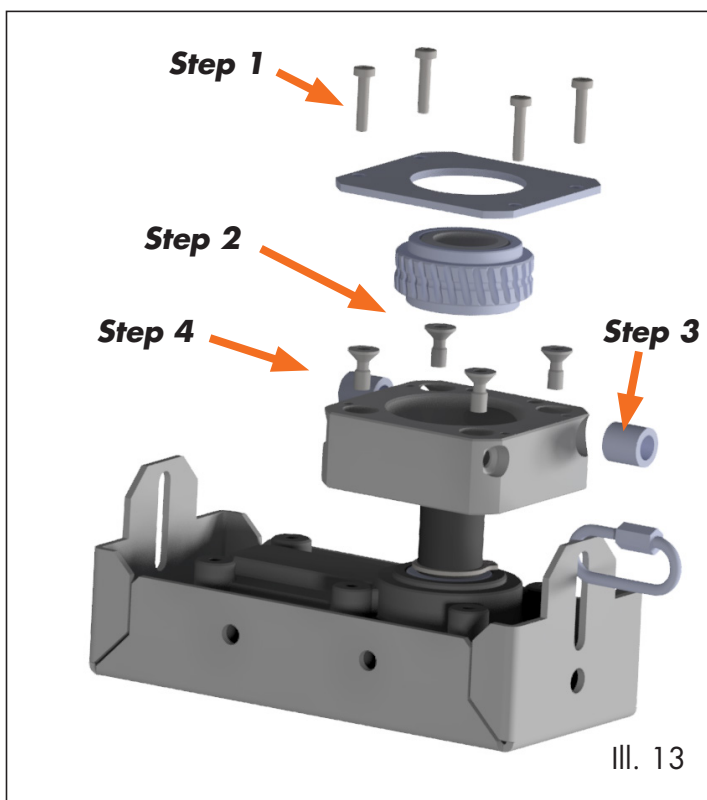
Wire rope wheel with the inscription upwards:
 damping anticlockwise

Wire rope wheel with the inscription downwards:
 damping clockwise

Afterwards put back the cover and tighten the screws again.



Ill. 12



Ill. 13

(b) Positioning the attachment for a different guiding of the rope

Step 1: See "Changing the damping direction"

Step 2: See "Changing the damping direction"

Step 3: Remove the guide bushes (if necessary use a small screw driver to push the bushes out). Below these are the fixing screws of the wire rope attachment.

Step 4: Loosen the four screws of the wire rope attachment and pull it off the axle of the radial damper.

Step 5: Turn the attachment so that the bores for the plastic bushes show in the direction of the rope and then put it back on the axle of the radial damper. Then again tighten the wire rope attachment and insert the guide bushes.

Step 6: Check whether after having turned the attachment, the damping direction is correct. If not, correct it (see above step 2).

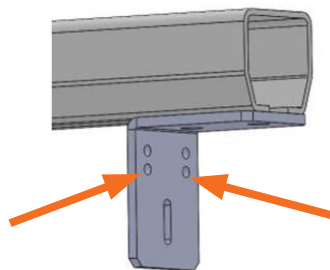
Step 7: Then again tighten the cover.

C) Installation of the DICTAMAT 50 WS - cont.**3) Mounting the Wire Rope****3a) Mounting the bracket for the wire rope tensioner**

- The bracket for the wire rope tensioner is fixed to one end of the rail (both ends are possible). If necessary, use a counter plate or larger washers.

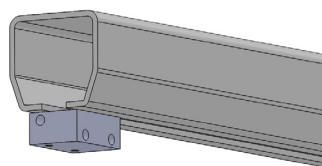
IMPORTANT:

The bores in the bracket for guiding through the rope (optional bores marked by arrows) and the ones in the wire rope attachment on the radial damper have to be exactly aligned, so that the wire rope runs absolutely straight - see also ill. 8.



III. 14

The clamp piece for the wire rope is fixed on the other end of the rail, For this purpose two M8 bores are provided.



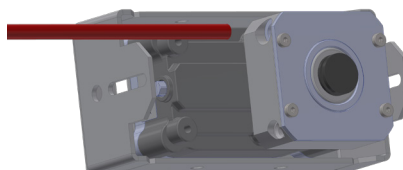
III. 15

On demand, also for the clamp piece a fixing bracket is available.

C) Installation of the DICTAMAT 50 WS - cont.

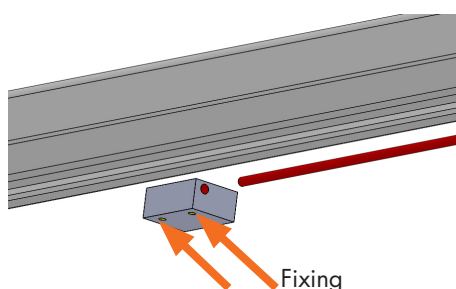
3b) Mounting the wire rope

- Guide the wire rope in the freewheel direction (usually the opening direction of the door) through the corresponding bore with the plastic bush in the wire rope attachment of the damper (see also point 2c).



III. 16

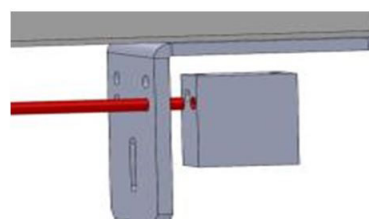
- Guide the wire rope through the bore in the clamp piece and fix it there by means of the headless pins (internal hexagon wrench size SW 3, marked by the arrows in ill. 17).



III. 17

- Guide the wire rope through one of the bores of the bracket for the wire rope tensioner. You have to choose the bore so that the wire rope will be perfectly aligned. Then insert the wire rope in the bore of the wire rope tensioner. Doing this, turn the worm inside the wire rope tensioner.

ATTENTION: The wire rope tensioner is NOT fixed to the bracket, but is held by the tensioned rope once the mounting has been finished.

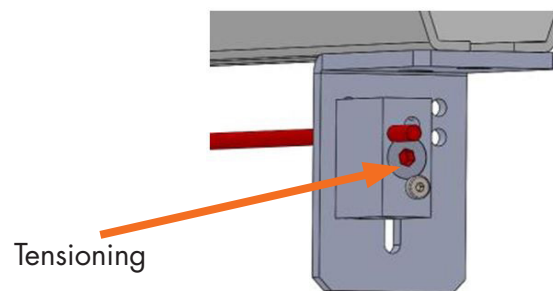


III. 18

C) Installation of the DICTAMAT 50 WS - cont.**3) Pretensioning the wire rope**

Now pretension the wire rope until it doesn't sag any more.

For tensioning use the Allen screw SW 6 on the wire rope tensioner.



III. 19

Turning clockwise:



more tension

Turning anticlockwise:

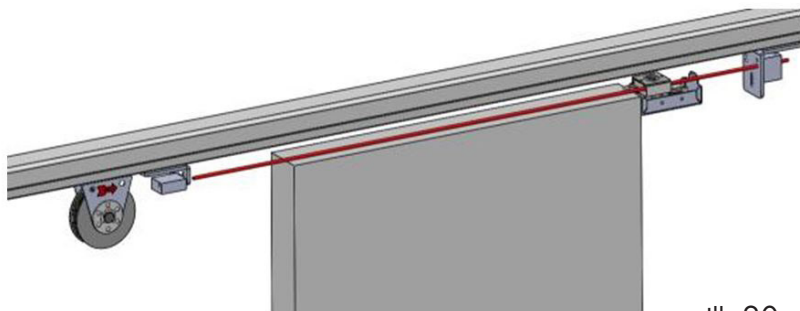


less tension

C) Installation of the DICTAMAT 50 WS - cont.

4) Mounting the Spring Rope Pulley

The spring rope pulley of the DICTAMAT 50 WS is mounted in the CLOSED position of the sliding door.

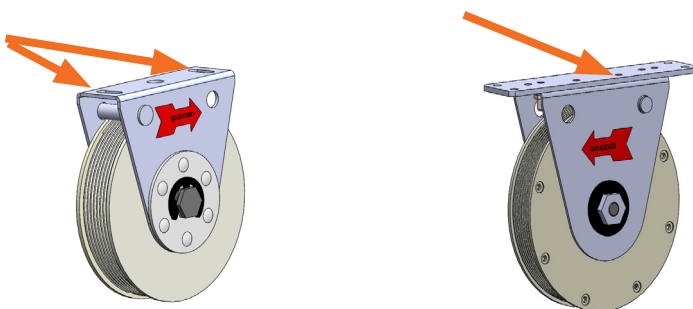


Ill. 20

Usually the eyelet of the Kevlar rope of the spring rope pulley is fixed to the bracket with the radial damper (see point C/6).

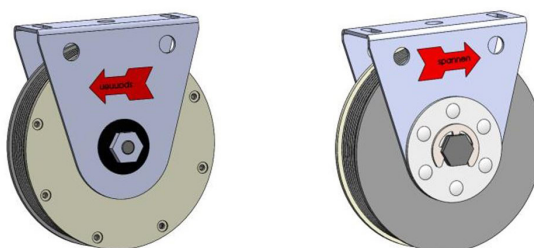
4a) Fixing the spring rope pulley

The bracket of the spring rope pulley features two oblong holes on its top which allow to screw the spring rope pulley from below to the ceiling/rail. In case the two oblong holes cannot easily be accessed in the choosen mounting position, an additional mounting plate, part no. 070114, is available (see ill. 21, right illustration).



Ill. 21

During mounting you have to make sure that the spring rope pulley is fixed so that its rope always points in the direction of the door leaf. You simply turn the spring rope pulley accordingly. As you can tension the spring from both sides, nothing else has to be changed.



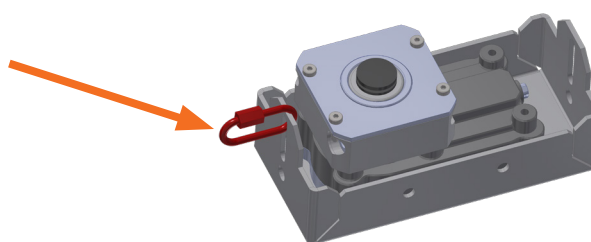
Ill. 22

C) Installation of the DICTAMAT 50 WS - cont.**4b) Fixing the Kevlar rope of the spring rope pulley on the door leaf**

The Kevlar rope has to run straight from the spring rope pulley, i.e. exactly horizontally and in-line, without any lateral deviation.

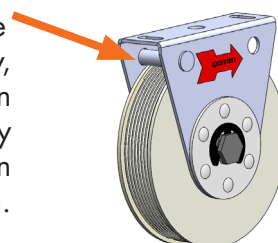
IMPORTANT: When choosing the fixing point for the rope of the spring rope pulley, you have to make sure that the travel of the spring rope pulley allows the complete door travel!

Usually the pressed on eyelet of the Kevlar rope of the spring rope pulley is fixed by means of the quick chain link (marked red) to the oblong hole in the bracket with the radial damper.



III. 23

When fixing the rope, you have to make sure the rope runs absolutely straight. If necessary, you can remove the safety pin - but only when the rope has been securely fastened. The safety pin shall prevent the rope from uncoiling when accidentally being released during mounting.



III. 24

5) Tensioning the Wire Rope

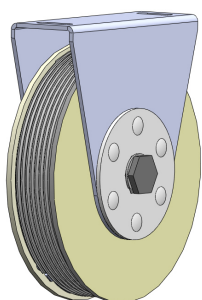
Before starting the adjusting work, the wire rope is finally tensioned. For the proceeding see point 3c.

IMPORTANT:

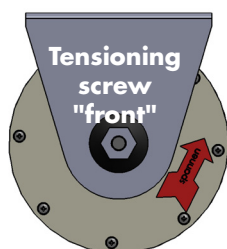
Don't tension the wire rope too much, as otherwise moving the door will require too much effort. The correct tension is achieved when the rope doesn't rest or touch anywhere.

After having completed the adjusting work according to the following pages, you should operate the door about ten times and then again control the tension of the rope.

1) Adjusting the Closing Force on the Spring Rope Pulley



III. 25a



III. 25b



III. 25c

D) Adjusting the Closing Force and Speed

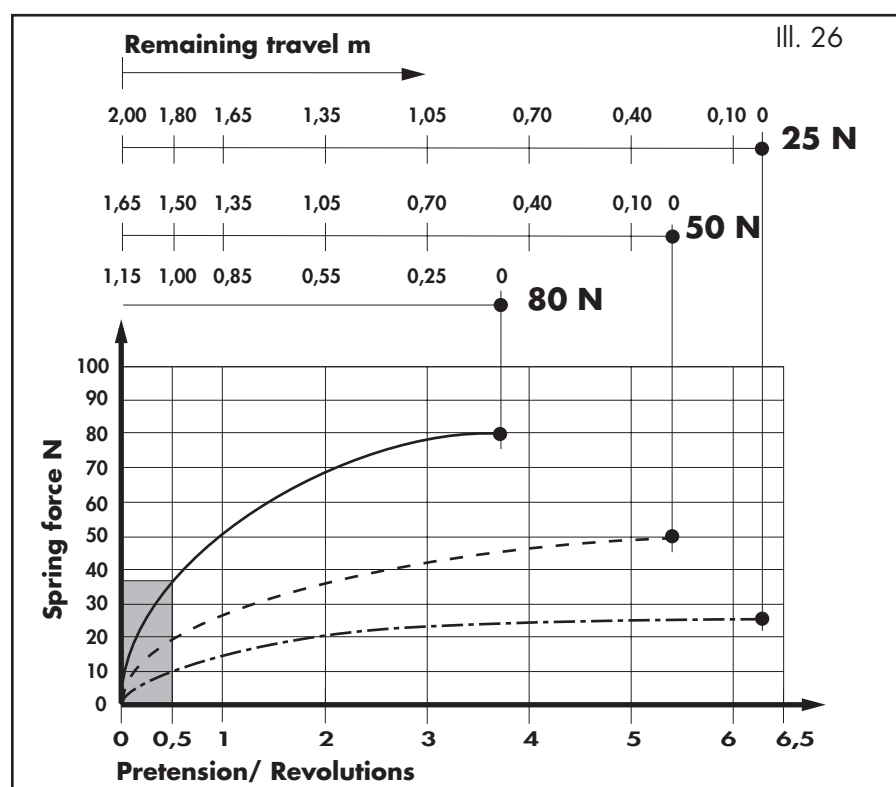
Open the door **completely** (max. opening 1.5 m). There have to be left at least 1.5 windings of rope on the spring rope pulley.

The spring is pretensioned by the tensioning screw SW 17 being accessible from both sides in the direction of the arrows "spannen" = tension (ill. 25a - 25c). Maximum pretension: 2, 4 respectively 5 revolutions, depending on the used spring rope pulley (see table below)!

Releasing: in case the spring had been tensioned too much, the pretension can again be reduced by turning the tensioning screw against the direction of the arrow.

DICTAMAT 50 WS					
25 N		50 N		80 N	
Travel	Rev.	Travel	Rev.	Travel	Rev.
1800 mm	0.5	1500 mm	0.5	1000 mm	0.5
1650 mm	1	1350 mm	1	850 mm	1
1350 mm	2	1050 mm	2	550 mm	2
1050 mm	3	730 mm	3		
700 mm	4	400 mm	4		
400 mm	5				

The diagram below (ill. 26) indicates the closing force of the spring rope pulley in relation to the pretension and the door width.



D) Adjusting the Closing Force and Speed - cont.**2) Adjusting the Closing Speed**

In order to adjust the closing speed **open** the door **completely**.

Now adjust the closing speed during the closing of the door by turning the adjustment screw on the radial damper (Allen key 5.5 mm or slotted screw driver) (ill. 27).

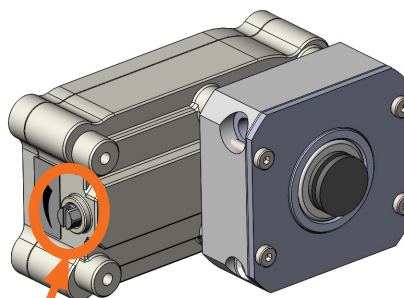
Turning clockwise: reduces the closing speed

Turning anticlockwise: increases the closing speed

In total 1.5 revolutions are possible between the minimum and the maximum damping. In the factory the damper is set to a medium damping.

Now check whether the spring closes the door out of any open position, independent from how far the door had been opened. If necessary, increase the tension of the spring or reduce the damping.

IMPORTANT: Tension the spring only when the door is completely open!



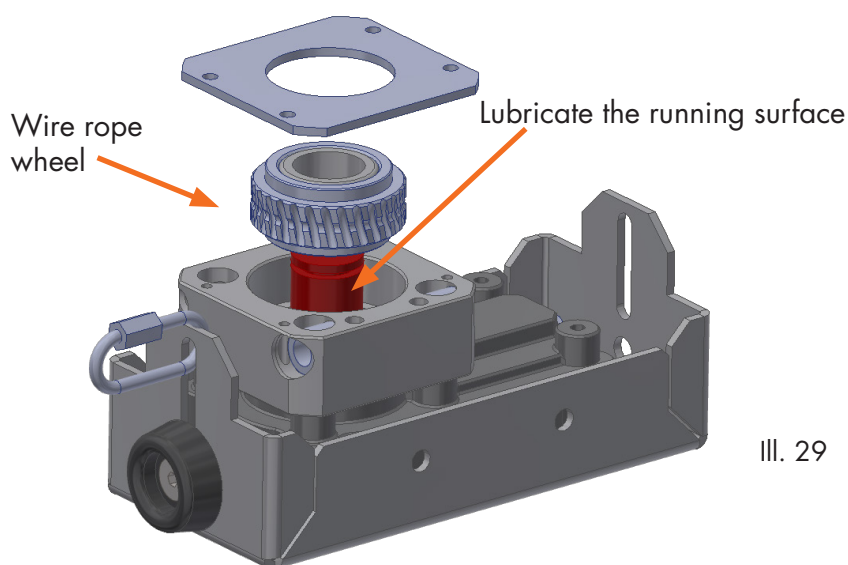
Ill. 27

**Adjustment screw
for the closing speed**

E) Maintenance, Servicing

Annually or latest after 30,000 operations:

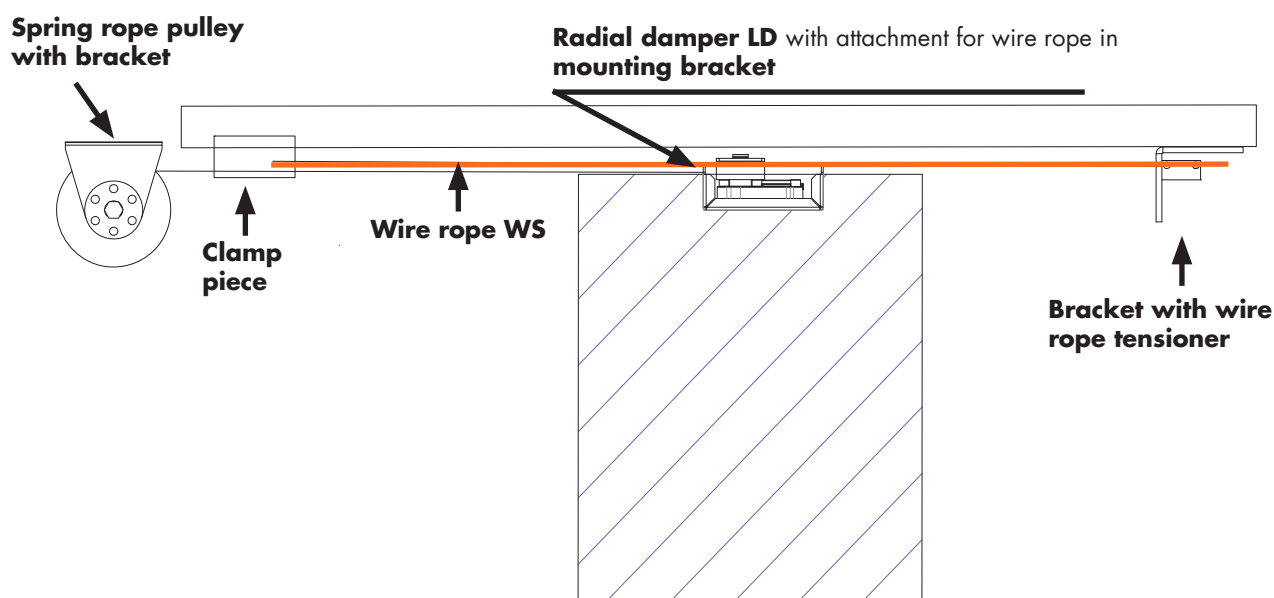
1. Check the door for damages and its smooth operation.
2. Check the fittings for damages and wearing: rail, wheel hanger, door handle etc.
3. Check the secure fixing of all door and operator fittings.
4. Wire rope and wire rope wheel have to be replaced at the latest after 100,000 operations.
5. Check the complete wire rope, the tothing of the wire rope wheel and the rope of the spring rope pulley for damages and wearing.
6. Check the freewheel of the wire rope wheel for smooth operation and running noises.
7. Lubricate just the running surface of the freewheel of the wire rope wheel with Vaseline (ill. 29). For this purpose slightly reduce the rope tension, unscrew the cover, take out the wire rope wheel and apply some Vaseline to the shaft.



8. Check the rope tension - see C, points 3c and 5.
9. Check the closing speed and force and, if necessary, adjust it. Too fast doors represent a risk of injuries.
10. All damaged and worn parts have to be replaced as soon as possible by original spare parts.

F) List of Spare Parts

Nachfolgend finden Sie die einzelnen Ersatzteile mit der entsprechenden Artikelnummer.



	Part no.
Radial damper LD 50 WS, without mounting bracket	244080
Mounting bracket for radial damper LD 50 WS	701040
Wire rope WS 6, per meter	244147
Wire rope tensioner, without bracket	701042
Wire rope tensioner, with bracket	701043
Clamp piece, without bracket	701047
Clamp piece, with bracket	701048
Bracket with counter plate for clamp piece	701050
Spring rope pulley 25 N with sliding hub, bracket zinc-plated	070102
Spring rope pulley 50 N with sliding hub, bracket zinc-plated	070093
Mounting plate for spring rope pulley with sliding hub	070114
Spare rope for spring rope pulley	700058